CANcard2-CAR

CAN Bus PCMCIA Interface for Vehicle Electronics

Data Sheet

Compact Vehicle Interface

Most ECUs in today's vehicle networks use the CAN bus as a communication medium for onboard and diagnostic data. It is therefore particularly important in the Engineering, Manufacturing and Service environment to have easy-to-use access to this CAN bus from your PC in all kinds of applications. CANcard2-CAR is a powerful hardware interface perfect for use in precisely such cases. CANcard2-CAR is particularly suitable for ECU communication in mobile use – whether using a notebook equipped with a PC card (PCMCIA) slot or by taking the card with you to be used in the system on site.

Areas of Implementation and Applications

In the ECU Engineering, Simulation, Test and Validation sectors, the CANcard2-CAR supports a wide range of communication applications. It allows parallel access to several ECUs at up to two CAN buses simultaneously – important for diagnostic and test applications.
Several bus adapter cables are available for connecting it to ECUs or to the vehicle. They are equipped with various CAN transceivers and thus enable simple and flexible use with different ECUs.
With the optional D-PDU API software in accordance with ISO 22900-2, the card can also be used in diagnostic applications and MVCI systems.

Advantages

CAN APIs

The CAN-API, which is standard for all CAN interfaces from Softing, provides powerful communication mechanisms for CAN applications. Local buffering and preprocessing result in high performance and a reduction of time-critical tasks for the PC. Special automation APIs, such as CANopen or DeviceNET-API, are also available.

D-PDU API

The standardized programming interface provides applications with powerful multi-channel communication mechanisms with vehicle protocols such as Diagnostics on CAN (ISO 15765) and UDS (ISO 14229). It also allows integration into diagnostic systems in accordance with ISO 22900 (MVCI).
D-PDU API is available upon request.

Scalability

The CANcard2-CAR supports two independent CAN bus channels. By combining several CANcard2-CAR (or even other CAN/EDIC® interfaces), the number of communication channels available on the PC can quickly be adapted to the relevant application.

Flexibility

Various software packages with operating software, APIs and vehicle protocols are available for operating the CANcard2-CAR.

An Overview of Features

- Active card with its own microcontroller
- 2 independent CAN bus channels
- Locale buffering and preprocessing
- High performance, reduces the number of time-critical tasks the PC has
- Various bus adapter cables available with different CAN transceivers

softing
Automotive Electronics GmbH

Softing Automotive Electronics GmbH
Richard-Reitzner-Allee 6
85540 Haar, Germany

Tel.: +49 89 4 56 56-420
Fax: +49 89 4 56 56-499
info.automotive@softing.com
www.softing.com

Softing North America, Inc.
29 Water Street, Suite 301
Newburyport, MA 01950
USA

Tel.: +1 978 499 9650
Fax: +1 978 499 9654
info.usa@softing.com
www.softing.us

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Technical Data

Format	PC Card Type II (PCMCIA)
Power supply	5 V (via PC)
Current consumption	Typ. 300 mA
Microcontroller	Infineon C165
Program/data memory	256 kB RAM for operating software (via download)
PC interface	PCMCIA V2.1, 4kB DPRAM (16-bit)
Vehicle interfaces	2 x CAN (transceivers depend on bus adapter cable)
CAN controller	SJA1000
Temperature range	Operation: 0 ... +55 °C, Storage: -20 ... +70 °C
EMV Konformität	■ Noise emission: EN 55022, EN 55011 Class A and EN 61000-6-4 (industrial sector) ■ Interference immunity: EN 61000-6-2 (industrial sector) ■ FCC part 15 subpart B limit A (industrial sector)

Delivery Scope

- CANcard2-CAR hardware
- CAN-API software, manual as PDF file and X-Analyser Appetizer on CD

System Requirements

- Operating system Windows™ 7, Vista, XP
- 4 kB free addressable storage in the upper memory area and one free interrupt

Software (optional)

- Diagnostic Tool Set (DTS)
- D-PDU API software in acc. with ISO 22900-2 (upon request)

Order Numbers / Options

CANcard2-CAR
PC-Card interface for 2x CAN 2.0B

PCcard2-PFX
Assembly kit and strain relief for the PC card interface connector, increases mechanical stability.

CANcard2/DHSC
bus adapter cable (double high-speed cable)
- 2 CAN channels: CAN high-speed, in acc. with ISO 11898
- 2 D-SUB 9 connectors, in acc. with CiA standard, without galvanic isolation

CANcard2/HLSC
bus adapter cable (high-speed/low-speed cable)
- 1 CAN channel: CAN high-speed, in acc. with ISO 11898
- 1 CAN channel: CAN low-speed (transceiver TJA1053)
- 2 D-SUB 9 connectors, in acc. with CiA standard, without galvanic isolation

CANcard2/DLSC
bus adapter cable (double low-speed cable)
- 2 CAN channels: CAN low-speed (transceiver TJA1053)
- 2 D-SUB 9 connectors, in acc. with CiA standard, without galvanic isolation

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